

APPLICATION OF BIOCONTROL AGENTS AND NEEM CAKE FOR THE MANAGEMENT OF *MELOIDOGYNE INCOGNITA* ON CHICKPEA (*CICER ARIETINUM* L.)

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Abstract

An integrated application of Neem Cake and Bio – control agents viz: *Trichoderma harzianum*, *Trichoderma viride*, *Paecilomyces lilacinus*, *Aspergillus niger* and *Verticillium chlamydosporium* were evaluated for the control of *M. incognita* in chickpea (c.v. H-208) under pot (15 cm diam.) conditions. Neem Cake was applied at the rate of 1 ton/ha. and biocontrol agents each 5000 spores/pot. The results indicated that the plant growth parameters were found to be increased in plants treated with biocontrol agents along with neem cake. Although single applications of either *Trichoderma harzianum*, *Trichoderma viride*, *Paecilomyces lilacinus*, *Aspergillus niger*, *Verticillium chlamydosporium* or neem cake suppressed *M. incognita* population and increased yield but all the treatment were found effective over the control. The biocontrol agents applied with neem cake recorded the maximum fruit yield of 18 pods (P.I. + N.c.) 17.66 pods (T.v. + N.c.) 17.66 (N.c. + T.h.) 17.33 (V.c. + N.c.) (Table I). Final results indicated that biocontrol agents along with neem cake were more effective than single application. The chlorophyll contents were found more concentrated in chickpea leaves in integrated application of biocontrol agents and neem cake (P.I. + N.c.-29mg/g, T.v. + N.c.-28.5mg/g, T.h. + N.c.-28.43mg/g).